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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/500,682	07/02/2004	Dolf Henricus Jozef Van Casteren	NL 020007	6574
7590 12/31/2007 Philips Electronics North America Corporation Corporate Patent Counsel PO Box 3001 Briarcliff Manor, NY 10510			EXAMINER LE, TUNG X	
			ART UNIT 2821	PAPER NUMBER
			MAIL DATE 12/31/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/500,682

Applicant(s)

VAN CASTEREN, DOLF
HENRICUS JOZEF

Examiner

Tung X. Le

Art Unit

2821

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on the RCE filed 10/29/2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 6-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2,6 and 11 is/are allowed.
- 6) ☒ Claim(s) 1,3,4,6-10 and 12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

This Office Action is in response to the Applicants' request for continued examination (RCE) filed on October 29, 2007 and amendment concurrently filed therewith. In virtue of this amendment:

- Claim 5 is cancelled; and
- Thus, claims 1-4 and 6-12 remain pending in the instant application.

Response to Applicants' arguments

1. Applicant's arguments filed September 28, 2007 have been fully considered but they are not persuasive.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a) because they fail to show "a *varying component*" as described in the specification. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary

to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1 and 10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With respect to claims 1 and 10, the recitation "*wherein the frequency of the alternating current is synchronized with the varying component*" in lines 10-11 of claim 1 and in lines 8-9 of claim 10 appears to be not understood how *the frequency of the alternating current is synchronized with the varying component*; as such, a frequency of a current signal is not able to synchronized with a physical element or a varying component of the circuit.

Claims 3-4, 7-9, and 12 are rejected under 35 U.S.C. 112, second paragraph as being dependent upon claim 1.

Clarification and appropriate correction are required.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1, 3-4, 7, and 10 are rejected under 35 U.S.C. 102(e) as being anticipated by Kamoi et al. (U.S. 6,437,515 B1 of record).

Regarding claim 1, Kamoi discloses in figure 2 a circuit for a lamp (La) comprising a first sub-circuit (1A) for connecting to mains voltage (AC) of a predetermined frequency (the main voltage [AC] having a selected frequency itself of the voltage for supplying to the ballast circuit) for rectifying the mains voltage (the rectifier [DB] for rectifying the main [AC] voltage to a DC voltage); a second sub-circuit (Q1-Q2) connected to the first sub-circuit (figure 2) for providing an alternating current required for the lamp (having an inverter [Q1-Q2] functioning as an alternating current); and a control circuit (4A and 5A) which is connected to the first and the second sub-circuit (figure 2) and which controls the frequency of the alternating current subject to a varying component (11A) of the mains voltage rectified by the first sub-circuit (column 5, lines 5-17); wherein the frequency of the alternating current provided by the second sub-circuit is synchronized with the varying component (figure 5).

Regarding claim 3, Kamoi discloses in figures 8 and 14 the second sub-circuit comprises a converter circuit (having a buck converter [82]) for stabilizing direct current (DC current) and a switching device (Q1-Q4) for providing a square-wave current (f) of a desired level (figures 16-20).

Regarding claim 4, Kamoi discloses in figure 2 that the control circuit (4A and 5A) is connected on one side to a switch (Q11) in the first sub-circuit and on the other side to one or more switches (Q1-Q2) in the switching device (inverter), so that the phase and/or frequency of the lamp current controlled by the switching device is controlled subject to a variation of the predetermined frequency of the mains voltage or a multiple thereof (column 6, lines 36-51).

Regarding claim 7, Kamoi discloses in figure 2 that the second sub-circuit comprises an igniter (figure 2) for generating voltage pulse across the lamp so as to ignite the lamp (column 3, lines 26-52).

Regarding claim 10, Kamoi discloses in figure 2 a method for operating a lamp comprising the steps of rectifying (DB) a supplied mains voltage (AC) and bringing it to a desired voltage level (figure 2); and generating an alternating current (Q1-Q2) wherein the frequency of the alternating current is controlled subject to a varying component (11A) of the rectified mains voltage (column 4, lines 52-67 and column 5, lines 1-4); wherein the frequency of the alternating current provided by the second sub-circuit is synchronized with the varying component (figure 5).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 8-9 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kamoi (U.S. 6,437,515 B1 of record).

Regarding claims 8-9, Kamoi discloses every feature of the claimed invention, as expressly recited in claim 1, excluding a voltage ranges 100V-150V and 10V-100V of the rectified mains voltages. However, such a difference is not of patentable merits since the ranged voltages can be selected at a desired level based on a particular application or environment of use and such a selection of a design choice would have been involved with only routine skills in the art. Therefore, to employ the voltage ranges of Kamoi to be suitable to a desired application or environment of use would have been deemed obvious to a person skilled in the art.

Regarding claim 12, Kamoi discloses every feature of the claimed invention, as expressly recited in claim 10, except for specifying that the desired level is +/- 0.8 A for normal operation of the lamp. However, such a desired level of +/- 0.8 A is not of patentable merits since the ranged of current can be selected at a desired level based on a particular application or environment of use and such a selection of a design choice would have been involved with only routine skills in the art. Therefore, to employ

the current range of Kamoi to be suitable to a desired application or environment of use would have been deemed obvious to a person skilled in the art.

Allowable Subject Matter

9. Claims 2, 6, and 11 are allowed.

10. The following is a statement of reasons for the indication of allowable subject matter:

Reasons for indicating allowable subject matter of claims 2, 6, and 11 were provided in the previous Office Action.

Remarks and Conclusion

11. In response to Applicants' argument with respect to the amendment submitted on September 28, 2007 of the drawings objection in page 7 at paragraph 2 and claims 1, 5, and 10 in pages 7-8 at paragraph 3 that "*FIG 5 shows the varying component, as described in the specification, such as on page 4, lines 13-19*"; and "*independent claims 1 and 10 have been amended to include the features of allowable claim 5*". However, Examiner disagrees because of the following reasons:

- Figure 5 of the instant application is an output voltage waveform of rectifier output voltage [U_{bc}] and it can not be a varying component or a physical element as being a part of the circuit.
- Independent claims 1 and 10 have not been amended to include the features of allowable original claim 5.
- A physical component can not synchronize with a signal as recited in the amended limitations of claims 1 and 10.

For the above reasons, the drawings objection and claims 1, 3-4, 7-9, 10, and 12 remain rejected under 35 U.S.C. 102(e) and 103(a) as being anticipated by Kamoi and being unpatentable over Kamoi.

Citation of Relevant Prior Art

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Prior art Kawasaki et al. (U.S. Patent No. 6,548,966 B2) discloses a discharge lamp lighting device.

Prior art Nobuyuki et al. (U.S. Patent No. 5,491,388) discloses a power regulator of discharge lamp and variable color illumination apparatus using the regulator.

Inquiry

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tung X. Le whose telephone number is 571-272-6010. The examiner can normally be reached on 8:30 AM - 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas Owens can be reached on 571-272-1662. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

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Examiner
Tung Le
AU 2821
December 22, 2007

A handwritten signature in black ink, appearing to read 'Thuy V. Tran', written in a cursive style.

THUY V. TRAN
PRIMARY EXAMINER